UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,389	10/25/2004	Nicolas Dubois	P1902US	3109

8968   7590   07/24/2008
DRINKER BIDDLE & REATH LLP
ATTN: PATENT DOCKET DEPT.
191 N. WACKER DRIVE, SUITE 3700
CHICAGO, IL 60606

EXAMINER
THOMPSON, JR, OTIS L

ART UNIT	PAPER NUMBER
2619	

MAIL DATE	DELIVERY MODE
07/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/501,389	DUBOIS ET AL.
Office Action Summary	Examiner	Art Unit	
	OTIS L. THOMPSON, JR	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>05 May 2008</u>.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-5,9-18,20 and 22-31</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-5,9-18,20 and 22-31</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☒ All　b) ☐ Some * c) ☐ None of:

　　　　1. ☒ Certified copies of the priority documents have been received.

　　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Response to Arguments

1.   Applicant's arguments, filed May 5, 2008, with respect to the rejection(s) of

claim(s) 1-5, 9-18, 20, and 22-28 under 35 U.S.C. 112 have been fully considered and

are persuasive. The 35 U.S.C. 112 rejection of those claims has been withdrawn.

2.   Applicant's arguments, filed May 5, 2008, with respect to the rejection(s) of

claim(s) 1-5, 9-18, 20, and 22-31 under 35 U.S.C. 102(b) and 35 U.S.C 103(a) have

been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of the

prior art presented in the detailed action below.

DETAILED ACTION

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 9, 11, 13, 14, 22, 24, 26, 29, and 30 are rejected under 35 U.S.C.

103(a) as being unpatentable over AT&T (EP 0 841 832 A2) in view of Baker et al. (US

6,266,700 B1).

5.   **Regarding claims 1, 14, 29, and 30,** AT&T discloses *a method for monitoring*

the operation of data collection on the operation of a packet transmission

communication network comprising interconnected routers, each of said router including

a routing unit (Figure 3 label 210; Column 4 lines 45-48, see "...interconnection network

210 routes data packets received at an input port to...output port(s)...") *and a control*

unit supervising the routing unit (Column 6 lines 40-50, see "...characteristics of the

interconnection network controlling the routing of data..." and "...modifications to the

interconnection network can be performed easily because the routing of data is

controlled through software...", i.e. Interconnection network 210 *supervises* the routing

as well as performs the routing), *such that each of said routers has its respective said*

routing unit arranged for the transferring of first packets between external ports of that

said router (Column 5 lines 30-32, see "...interconnection network 210 routes each data

packet [i.e. first packets] received at each input port to...output port(s) [i.e. between

external ports]...") *and for transferring second packets between external ports of that*

said router (Column 5 lines 32-34, see "...routing a copy of all data packets [i.e. second

packets] or routing selective..."; Figure 4, see lines from input ports through the

interconnection network 210 to the monitor port, representing copies of packets

exchanged between the input and output ports) *and an internal port connected to the*

control unit of that said router (Figure 3, see Monitor Port 1 connected to

interconnection network 210).

      AT&T does not specifically disclose *selecting packets corresponding to at least*

some of the second packets transferred at said internal port of said any of said routers

by means of a determined collection filter; and recording a content of the selected

packets on a recording medium, said content comprising data on the operation of the

network, wherein the selection of packets and an extraction of said content to be

recorded of the selected packets are carried out by means of a collection module

disposed inside said any of said routers and connected to said internal port of said any

of said routers, these steps being parallel to the transfer of first and second packets by

the routing unit of any of said routers.

However, Baker et al. discloses a network filtering system in which a single logic

control module (i.e. *collection module*), which may be implemented as hardware or

software in a router (Column 3 lines 4-8), is utilized to perform any of a number of data

manipulation functions on frames in a network including, for example, parsing, filtering,

data generation or analysis, based upon one ore more programmably configurable

protocol descriptions which may be stored in and retrieved from an associated memory

(See Abstract). Since the module may be implemented in a router (i.e. *means of a*

collection module disposed inside said any of said routers), as that of AT&T disclosed

above, it would obviously be connected to the monitor port of the router in Figure 3 of

AT&T, where copies of packets are being received. Furthermore, since the module is

separate from routing and control units, it can obviously perform its functions *parallel to*

the transfer of first and second packets. The module *selects packets by means of a*

determined collection filter (Column 3 lines 23-28, see "...logic for filtering a subset of

network frames received...which satisfy a filter criteria defined...") and *records content of*

the selected packets on a recording medium (Column 6 lines 32-35, see "...available

data storage options (such as RAM, ROM, EPROM…)..."; i.e. It is inherent that the

module records the content because it analyzes the content). The *content comprises*

data on the operation of the network (Column 2 lines 42-45, see "…parsing, filtering,

generating, and analyzing data (or frames of data) transmitted over a data communications network…"; i.e. Analyzing data obviously means that the filtered and collected data is based on the operation of the network) and *is extracted from the selected packets by the collection module* (Column 3 lines 17-23, see "…system of the present invention…includes logic for extracting field values from particular network frames…").

   An advantage of Baker et al. is that the network analysis system is capable of determining which protocols and which protocol fields exist in a network frame using common control logic combined with configurable protocol descriptions.

   Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to incorporate the teachings of Baker et al. into AT&T in order to determine which protocols and which protocol fields exist in a network frame using common control logic combined with configurable protocol descriptions.

6.   **Regarding claims 9 and 22,** AT&T in view of Baker et al. discloses *reading recorded contents of selected packets.* Specifically, Baker et al. discloses the parsing, filtering, statistics gathering, and analysis of data frames (Column 2 lines 42-45), all of which inherently *read the recorded contents of selected packets.* The advantage of Baker et al. is that these functions are programmable (Column 3 lines 1-5). Therefore, *reading of recorded contents of selected packets* is obvious over AT&T in view of Baker et al.

7.   **Regarding claims 11, 13, 24, and 26,** AT&T in view of Baker et al. discloses that *said content of a selected packet is recorded with coordinates of said selected*

packet and that *the recorded coordinates of a selected packet comprise an address of the router which contains said internal port at which said second packet corresponding to said selected packet is transferred.* Specifically, Baker et al. discloses parsing, filtering, and analyzing based on programmable protocol descriptions stored in and retrieved from memory (See Abstract). These stored protocols specify source and destination addresses (i.e. *coordinates,* i.e. *address of the router which contains said internal port*) (See Table 12 for example). Hence, it is obvious that the source and destination addresses would be recorded with the content of selected packets in order to perform coherent analysis on the content. Therefore, *recording coordinates of said selected packet with the content of the selected packet* is obvious over AT&T in view of Baker et al.

8.   Claims 2, 3, 5, 10, 15-17, 20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over AT&T in view of Baker et al. as applied to claims 1 and 14 above, and further in view of Murthy et al. US (5,610,905).

9.   **Regarding claims 2 and 15,** AT&T in view of Baker et al. discloses the claimed invention above but fails to teach or suggest *a recording unit connected to the communication network, remote from said router, and said content of the selected packets being sent to said recording unit.* However, Murthy et al. discloses that a monitoring device (i.e. *recording unit*) such as Sniffer™ or LANalyzer™ is connected to the network medium, such as coaxial cable (i.e. *remote from said router*) (Column 1 lines 35-40). Murthy et al. further discloses that the monitoring port sends packet

content to the monitoring device for analysis (Column 18 lines 24-34). This method

allows for the provision of various diagnostic information enabling the network manager

to locate problems, evaluate performance, and determine appropriate adjustments to

network parameters (Column 18 lines 30-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the applicant's invention was made to incorporate the teachings of Murthy et al. in

to the system of AT&T in view of Baker et al. in order to provide various diagnostic

information enabling the network manager to locate problems, evaluate performance,

and determine appropriate adjustments to network parameters.

10.   **Regarding claims 3, 16 and 17,** AT&T in view of Baker et al. does not teach or

suggest *formatting of said content of the selected packets prior to the sending of this*

content to the recording unit via the communication network, the formatting comprising

the assignment to the content of address data corresponding to the recording unit.

However, Murthy et al. discloses that a monitoring device (i.e. *recording unit*) such as

Sniffer™ or LANalyzer™ is connected to the network medium, such as coaxial cable

(Column 1 lines 35-40). Murthy et al. further discloses that the monitoring port sends

packet content to the monitoring device for analysis (Column 18 lines 24-34). Since the

monitoring device is remotely connected, any packet that is being sent thereto for

analysis is inherently formatted for transmission using the address of the monitoring

device. This method allows for the provision of various diagnostic information enabling

the network manager to locate problems, evaluate performance, and determine

appropriate adjustments to network parameters (Column 18 lines 30-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to incorporate the teachings of Murthy et al. in to the system of AT&T in view of Baker et al. in order to provide various diagnostic information enabling the network manager to locate problems, evaluate performance, and determine appropriate adjustments to network parameters.

11.   **Regarding claims 5 and 20,** AT&T in view of Baker et al. discloses the claimed invention above but fails to teach or suggest that *the collection module is remotely programmable by means of program codes sent to the collection module via the communication network.* However, Murthy et al. discloses that packets are selected for monitoring by a supervisory access terminal which is attached to the router. Using the terminal, the network manager is able to define the type of traffic to be copied to the monitoring port (Column 2, lines 46-53). The supervisory access terminal performs said defining by using a simple command-line language (i.e., *programming codes*) (Column 18, lines 43-45). Murthy et al. further discloses that alternately, these supervisory functions are carried out from any network-attached (i.e., *remotely programmable via the communication link or network*) terminal using well- known protocols (Column 2, lines 48-49). The invention Murthy et al. allows for the provision of various diagnostic information enabling the network manager to locate problems, evaluate performance, and determine appropriate adjustments to network parameters (Column 18 lines 30-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to incorporate the teachings of Murthy et al. in to the system of AT&T in view of Baker et al. in order to provide various diagnostic

information enabling the network manager to locate problems, evaluate performance, and determine appropriate adjustments to network parameters.

12.   **Regarding claims 10 and 23,** AT&T in view of Baker et al. and further in view of Murthy et al. discloses *a selection step according to a filter for reading recorded contents of packets selected according to the collection filter.* Specifically, Baker et al. discloses the inherent *reading of recorded contents* as shown above in section 6 of this office action, in which data is parsed and analyzed. Furthermore, it is obvious to select the recorded contents prior to reading because the selection step is what allows the reading. The data has been previously filtered and is collected together in storage; therefore selection for the purpose of reading is obvious.

13.   Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over AT&T in view of Baker et al. in view of Murthy et al. as applied to claims 3 and 15 respectively above, and further in view of Fletcher et al. (US 6,108,782).

14.   **Regarding claims 4 and 18,** AT&T in view of Baker et al. in view of Murthy et al. discloses the claimed invention above but fails to teach or suggest that *the content of the selected packets is encrypted prior to the sending of this content to the recording unit via the telecommunication network.* However, Fletcher et al. discloses distributed remote monitoring for networks in which collected data is encrypted before transmission in order to keep communication secure, disallowing hackers to access the data (Column 16 lines 60-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the applicant's invention was made to incorporate the teachings of Fletcher et al.

into the system of AT&T in view of Baker et al. in view of Murthy et al. in order to keep

communication secure, disallowing hackers to access the data.

15.   Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable

over AT&T in view of Baker et al. as applied to claims 11 and 24 respectively above,

and further in view of Hafez et al. (US 6,513,065 B1).

16.   **Regarding claims 12 and 25,** AT&T in view of Baker et al. discloses the claimed

invention above but fails to teach or suggest that *the recorded coordinates of a selected*

packet comprise a timestamp of the collection of said selected packet. However, Hafez

et al. discloses an agent computer system for collecting raw data relating to one or more

metrics, i.e., measurements of system resources on the agent computer system. The

system uses a Universal Data Repository (UDR) which receives raw metric data from

the one or more agents (See Abstract). Furthermore, each raw data point has an

associated timestamp which is generated at the time of collection (Column 12 lines 45-

50). The system uses this timestamp to maintain process state changes and to know

the time that is associated with a specific metric (Column 12 lines 45-57).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the applicant's invention was made to incorporate the teachings of Hafez et al. into

the system of AT&T in view of Baker et al. in order to maintain process state changes

and to know the time that is associated with a specific metric.

17.   Claims 27 and 31 rejected under 35 U.S.C. 103(a) as being unpatentable over

admitted prior art AT&T in view of Baker et al. as applied to claims 14 and 30

respectively above, and further in view of Datta et al. (US 2001/0047409 A 1).

18.   **Regarding claims 27 and 31,** AT&T in view of Baker et al. discloses the claimed

invention above but fails to specifically disclose *a unit for simulating the operation of the*

communication network by using the recorded contents of selected packets. However,

Datta et al. discloses an apparatus for network capacity evaluation and planning which

performs the process shown in figure 6. At step 61, a measure of network volume for

network links is computed. At step 62, network capacity, utilization, and balance are

evaluated based on the network's current configuration and data volume. At step 63, a

scenario is defined with an alternate configuration. At step 64, the data collected in

steps 61 and 62 is evaluated for the alternate configuration. At step 65 additional

scenarios are optionally performed. At steps 66 and 67, configurations are compared

and selected and the desired configuration is created. The purpose of this method is to

simulate all measurements in a network in order to provide assistance in defining a

network so that a determination can be made as to whether one configuration is

superior to another (Column 7, lines 34-38).

        Therefore, it would have been obvious to one of ordinary skill in the art at the

time the applicants' invention was made to incorporate the teachings of Datta et al. into

the system of AT&T in view of Baker et al. in order to simulate all measurements in a

network in order to provide assistance in defining a network so that a determination can
be made as to whether one configuration is superior to another.

19.   Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over AT&T in
view of Baker et al. as applied to claim 14 above, and further in view of Applicant's
Admitted Prior Art (AAPA).

20.   **Regarding claim 28,** AT&T in view of Baker et al. discloses the claimed
invention above but fails to teach or suggest *a unit for constructing and/or updating,*
based on the recorded contents of selected packets, a table for determining paths
intended to be respectively assigned to packets transferred by the routing unit of the
router. However, AAPA discloses a well known path determination method called Open
Shortest Path First (OSPF) (Page 9 line 33-Page 10 line 4).

        Therefore, it would have been obvious to one of ordinary skill in the art at the
time the applicant's invention was made to incorporate the use of OSPF into the system
of AT&T in view of Baker et al. as a path determination method for selected packets.

Conclusion

        Any inquiry concerning this communication or earlier communications from the
examiner should be directed to OTIS L. THOMPSON, JR whose telephone number is
(571)270-1953. The examiner can normally be reached on Monday to Thursday 7:30
am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on (571)272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Otis L Thompson, Jr./
Examiner, Art Unit 2619

July 17, 2008

/Chirag G Shah/

Supervisory Patent Examiner, Art Unit 2619